

WHAT IS CLAIMED IS:

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1. An Internet telephone system having an Internet network for transferring voice information in the form of a voice packet which is transmitted from a voice communications terminal
5 incorporating a voice communications function, and transferring data in the form of a data packet which are transmitted from a data communications terminal incorporating a data communications function, said system comprising:

10 a first detecting unit for detecting a transition of a call-out state of said voice communications terminal;

a packet assembling unit for assembling, when said first detecting means detects the transition of the call-out state of said voice communications terminal, a control packet containing indication information for changing, to a
15 predetermined limit value, a maximum length of each of the data packets transferred via said Internet network; and

a first routing unit for routing, when receiving the control packet containing the indication information, each of the data packets and the voice packet to said Internet network
20 while restricting the maximum length of the data packet to the predetermined limit value.

2. An Internet telephony system according to claim 1, further comprising a second routing unit for preferentially
25 routing the voice packet to said Internet network under the condition that said first routing unit routes the data packet in accordance with the predetermined limit value.

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3. An Internet telephony system according to claim 1 ~~or~~
2, wherein said first routing unit, when receiving the control
packet, fragments the data packet having a length exceeding the
5 predetermined limit value in order to route each of the data
packets to said Internet network in accordance with the
predetermined limit value.

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4. An Internet telephony system according to claim 1 ~~or~~
10 2, further comprising a second detecting unit for detecting an
end-of-communications state of said voice communications
terminal.

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5. An Internet telephony system according to claim 4,
15 wherein when said second detecting unit detects the
end-of-communications state of said voice communications
terminal, said packet assembling unit assembles a control packet
containing indication information in order for said first routing
unit to make each of the data packets transferable to said Internet
20 network up to the maximum length.

6. An Internet telephony system according to claim 5,
wherein each of the voice packet, the data packet and the control
packet takes the form of an Internet Protocol packet.

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7. An Internet telephony system according to claim 6,
wherein said first and second detecting units and said packet

assembling unit are provided in a gateway for converting the voice information transmitted from said voice communications terminal into a packet in accordance with the Internet Protocol, and

5 said first and second routing units are provided in a router for routing the Internet Protocol packet to said Internet network.

8. A method of controlling a packet transfer in an Internet telephone system having an Internet network for transferring voice information in the form of a voice packet which is transmitted from a voice communications terminal incorporating a voice communications function, and transferring data in the form of a data packet which are transmitted from a data communications terminal incorporating a data communications function, said method comprising:

10 a first step of detecting a transition of a call-out state of said voice communications terminal;

15 a second step of assembling, when detecting the transition of the call-out state of said voice communications terminal, a control packet containing indication information for changing, to a predetermined limit value, a maximum length of each of the data packets transferred via said Internet network; and

20 a third step of routing, when receiving the control packet containing the indication information, each of the data packets and the voice packet to said Internet network while restricting the maximum length of the data packet to the predetermined limit

value.

9. A method of controlling a packet transfer according to claim 8, further comprising a fourth step of preferentially
5 routing the voice packet to said Internet network under the condition that the data packet is routed in accordance with the predetermined limit value in said third step.

10. A method of controlling a packet transfer according to claim 8 ~~or 9~~, further comprising a fifth step of detecting
10 an end-of-communications state of said voice communications terminal.

11. A method of controlling a packet transfer according to claim 10, further comprising a sixth step of assembling, when
15 the end-of-communications state of said voice communications terminal is detected in said fifth step, a control packet containing indication information for making each of the data packets transferable to said Internet network up to the maximum
20 length.